

- Diachrōmus*: "of diverse colours".
Dicheirotrichus: "with two hands hairy", i.e. the soles of male protarsi.
Bradycellus: "slow-moving".
Stēnolōphus: "narrow crest" (application hardly clear).
Acupalpus: Latin, "with needle-like palpi".
Līcīnus: name of a barber and wealthy freedman of the emperor Augustus.
Badister: "a walker". (cf. *Dromius*)
Panagaeus: "all-admirable".
Chlaenius: chlaina, a woollen cloak worn by the Greeks.
Callistus: "fairest, most beautiful".
Oodes (3 syllables): egg-shaped, ovoid".
Odacantha: Greek *odous* "tooth" and *akanthos* "thorn" (meaning thorn-like tooth?).
Masoreus: origin obscure.
Lebia: *lēbias*, a kind of fish, is the nearest word.
Demētrias: a city in Thessaly, Greece (Dēmēter "earth mother" = Ceres.)
Dromius: *drōmeus* "a runner".
Microlēstes: "little robber", cf. *Leistus*.
Metablētus: "turning, changing direction".
Lionychus: "smooth claw" (of tarsi).
Cymindis: "a night-hawk" (application obscure or arbitrary).
Polistichus: for *Polystichus* "many rows", with reference to the striae.
Drypta: an over-ripe, mouldy olive. (If descriptive, a very poor effort!)
Brachinus: evidently based on *brachys* "short", but the reason is not apparent.

—A. A. ALLEN, 49 Montcalm Road, Charlton, London SE7 8QG.

An unsuccessful attempt at rearing *Dahlica inconspicuella* (Stt.) (Lep.: Psychidae)

On 28 January 2001, I collected larval cases of *Dahlica inconspicuella* from beneath discarded roofing felt just above the strand line on the shingle beach at Dungeness, East Kent. These produced three adults (one male and two females) over the following month, but I was unable to obtain a pairing due to the male having died before the females emerged. As I wished to rear this species, I contacted Dennis O'Keefe and he agreed to send me further material. This he collected from the same locality on 2 April, and thirteen cases duly arrived in the post at 08.30 hours on 4 April. On unpacking these I found one female, which emerged in transit, had adopted a "calling" posture. By 18.00 hours three further females and a male had emerged. It was apparent that the male had paired with three of the females, as their abdomens, void of ova, showed that these individuals had oviposited. The remaining female died a few days later, presumably unmated as it did not oviposit. No further adults emerged from this material.

Ovipositing females laid in their larval case, beneath their pupal exuviae which projected from the anterior end of their case. Ova were oval in shape, creamy white in colour and with a soft smooth chorion, no obvious sculpturing being visible at $\times 25$ magnification. Investigation of the cases showed that nine contained ova, hence six must have held ova at the time of collection as only three females had oviposited in captivity.

By 27 April, two small, pale-brown spots were visible through the chorion of one ovum, positioned towards one end. These darkened and enlarged over the following three or four days, and as this process advanced it became clear that these were the developing eyes and head capsule of the larva within. On 3 May, newly emerged

larvae were present and by 12 May a total of 320 larvae had hatched from the nine female cases containing ova, an average of around 35 per female. In order to identify a suitable diet on which to rear these, the larvae were placed in an unlined culture vessel. They were supplied with a choice of finely chopped dead and live grass, moss, oak bark coated with the yellow lichen *Xanthoria parietina* and the terrestrial epiphytic alga *Pleurococcus viridis*, and a dead (dry) microlepidopteran. Fine, sieved clay particles were also added, as fine grit had been used by the larvae of the parental generation during the construction of their larval cases. Almost instantly this material was used by the first instar larvae for constructing minute cases, which were clearly triangular in cross section, even at this early stage, and had a slight collar projecting around the anterior opening which was located on the underside at one end of the case. Once their cases had been constructed the larvae migrated to the oak bark and commenced feeding on the algae growing on this. Very little interest was shown in the moss, lichen or grass and the dead microlepidopteran was ignored completely. Hence, further culturing was conducted using algae as the larval pabulum.

The larvae were maintained under a natural photoperiod at room temperature. By day they hid amongst and beneath the tree bark, but by night they came up to graze on the algae. The culture was sprayed once a week with distilled water, after which larvae were observed to search for water droplets and imbibe these in the same manner as described for larvae of *Luffia ferchaultella* and *L. lapidella* (*Br. J. ent. nat. Hist.* **12**: 17-25). During the first week in August, larvae began to climb the walls of the culture vessels, though they did not fix their cases at this time. Additional water spraying was found to reduce this behaviour, but did not eliminate it, as it was found to be due in part to positive phototaxis, with the larvae moving towards a source of illumination.

Larval instars were separated on the basis of head capsule size. Second instar larvae were observed on 26 May, third instars on 16 June and fourth instars on 25 July. By 24 August, final (fifth) instar larvae were present.

The larvae changed their diet around the end of their third instar or early in their fourth, exhibiting a distinct preference for fresh dead Lepidoptera. Unfortunately, by this stage approximately 50% of the larvae had died as a result of desiccation, starvation or fungal attack. By the end of September, all feeding activity had stopped and the surviving larvae had loosely fixed their cases to the lid of the culture vessel and beneath pieces of bark. However, mortalities continued to occur and by 26 December only around 20 survivors remained. Movement was observed with one larva on 27 February 2002, but this last survivor had died by 2 March. Consequently, no adults were reared from this batch of larvae.

On 29 June, 20 third instar larvae were removed and sub-cultured under controlled environmental conditions (Gallenkamp illuminated incubator, photoperiod 14-hour light and 10-hour dark, temperature 20°C) on a diet of algae. Growth was found to be slower than those in the original culture, which was maintained under a natural photoperiod and temperature regime. All 20 had died by the end of September.

On the 10 November, 20 larvae from the original stock were sent to Uwe Widowski in Germany, as he and a colleague had expressed an interest in rearing this species. Uwe used a different approach, placing the larvae outdoors on bark with algae and lichen as a pabulum and spraying them with water daily. This proved to be the most successful method, as three males and two females duly emerged during the early Spring of 2002.

Obviously the various artificial culture conditions I used were inadequate in some respect. The sub-culture placed in a controlled environmental chamber was unsuccessful. This regime has been used successfully for *Luffia lapidella* (Goeze) and *L. ferchaultella* (Stephens) (*Br. J. ent. nat. Hist.* 12:17-25). The conditions provided to the culture maintained in an unheated room under a natural photoperiod were also unsuitable. This method has been successful with *Dahlia triquetrella* (Hübner) (*Br. J. ent. nat. Hist.* 12: 29-30) and *Bankesia douglasii* (Stainton) (in press). The only approach to rearing this species which met with any success was that adopted by Uwe. He achieved a 25% success rate by overwintering the full-grown larvae out doors.

At present I am attempting to rear a second batch of larvae. These originated from pupae collected by Dennis at Dungeness on 19 February 2002. Adults hatched between 26 February and 7 March, and 11 females laid ova between these dates. The ova hatched between 23 and 30 March, producing 417 larvae. The average number of ova per female, based on the number of larvae hatching, was 38. This is similar to the average of 35 per female obtained with the first rearing attempted in 2001. At present these larvae are again being cultured under a natural photoperiod in an unheated room. This time the culture vessels contain a layer of sieved *John Innes* Potting Compost with the larval pabulum (epiphytic algae on oak bark) placed on this. The numbers of larvae per culture vessel have also been reduced to around 40 or so, to avoid over crowding. The intention is to introduce a supply of fresh dead insects, as well as algae, to the larvae around their third or fourth instar, then to overwinter them outdoors. So far they are feeding well, but it will be another 10 or 11 months before I know if I have succeeded with this species this time.— IAN SIMS, 2 The Delph, Lower Earley, Reading, Berkshire RG6 3AN.

BOOK REVIEWS

The larger moths and butterflies of Herefordshire and Worcestershire: An atlas by Michael Harper and Tony Simpson. 195 + xvi pp., A4, wire bound with acetate covers. ISBN 0 9519749 1 2. Butterfly Conservation (West Midlands Branch), 2001. Available from "West Midlands Branch Butterfly Conservation" (to whom cheques should be payable), 65 Wentworth Road, Birmingham B17 9SS. £7.50 (members of Butterfly Conservation or the Herefordshire & Worcestershire Wildlife Trust), or £10 all others. Postage and packing of £2.00 should be added in all cases.

This splendid atlas records, principally, the efforts of the two authors, who are the Moth Recorders for the two vice counties, over the past thirty years, supplemented by the meagre amount of information that is available from other sources. Quite why an area that has such hot spots as the Wyre Forest (Worcestershire) and the Wye Valley (Herefordshire) should apparently have so few people actively recording its moths is something of a surprise. Perhaps they didn't send in their records? What a good job they have Messrs. Harper and Simpson to redress the balance! The geology and topography of the two counties are introduced and there follows a very brief history of recording here. More interesting, however, are the next few pages that elaborate in some detail upon significant changes in the moth and butterfly fauna, including discussion on presumed extinctions, new arrivals, overlooked species, newly recognised species, transient residents, migrants, increasing species and declining species. There is much valuable information in these pages and, for one who has by now grown accustomed to the soft life and multiplicity of moths in the south-east, not a few surprises.